

OIEP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/899,295

DATE: 07/24/2001
TIME: 10:54:05

Input Set : A:\00a033e1.app
Output Set: N:\CRF3\07242001\I899295.raw

ENTERED

```

3 <110> APPLICANT: Aventis Pharma Deutschland GmbH
5 <120> TITLE OF INVENTION: Process for identifying modulators of G protein coupled
6   receptors
8 <130> FILE REFERENCE: AVE D-2000/A033 englisch
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/899,295
C--> 11 <141> CURRENT FILING DATE: 2001-07-06
13 <160> NUMBER OF SEQ ID NOS: 10
15 <170> SOFTWARE: PatentIn Ver. 2.1
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 1080
19 <212> TYPE: DNA
20 <213> ORGANISM: Mus musculus
22 <400> SEQUENCE: 1
23 atgactctgg agtccatcat ggcgtgctgc ctgagcgagg aggccaaagga agcccggcgg 60
24 atcaacgacg agatcgagcg gcacgtccgc agggacaagc gggacgcccg ccgggagctc 120
25 aagctgctgc tgcctgggac aggagagagt ggcaagagta cgtttatcaa gcagatgaga 180
26 atcatccatg ggtcaggata ctctgatgaa gataaaaggg gcttcaccaa gctgggtgat 240
27 cagaacatct tcacggccat gcaggccatg atcagagcca tggacacact caagatccca 300
28 tacaagtatg agcacaataa ggctcatgca caattagttc gagaagttga tgtggagaag 360
29 gtgtctgctt ttgagaatcc atatgtagat gcaataaaga gtttatggaa tgatcctgga 420
30 atccaggaat gctatgatag acgacgagaa tatcaattat ctgactctac caaatactat 480
31 cttaatgact tggaccgcgt agctgaccct gcctacctgc ctacgcaaca agatgtgctt 540
32 agagttcgag tccccaccac agggatcatc gaatacccct ttgacttaca aagtgtcatt 600
33 ttcagaatgg tcgatgtagg gggccaaagg tcagagagaa gaaaatggat aactgcttt 660
34 gaaaatgtca cctctatcat gtttctagta gcgcttagtg aatatgatca agttctcgtg 720
35 gagtcagaca atgagaaccg aatggaggaa agcaaggctc tctttagaac aattatcaca 780
36 tacccttggt tccagaactc ctcggttatt ctgttcttaa acaagaaaga tcttctagag 840
37 gagaaaatca tgtattccca tctagtcgac tacttcccag aatatgatgg accccagaga 900
38 gatgccagg cagcccagga attcattctg aagatgttcg tggacctgaa cccagacagt 960
39 gacaaaatta tctactccca cttcacgtgc gccacagaca ccgagaatat ccgctttgtc 1020
40 tttgctgccg tcaaggacac catcctccag ttgaacctga aggagtacaa tctggtctaa 1080
43 <210> SEQ ID NO: 2
44 <211> LENGTH: 359
45 <212> TYPE: PRT
46 <213> ORGANISM: Mus musculus
48 <400> SEQUENCE: 2
49 Met Thr Leu Glu Ser Ile Met Ala Cys Cys Leu Ser Glu Glu Ala Lys
50   1               5               10               15
52 Glu Ala Arg Arg Ile Asn Asp Glu Ile Glu Arg His Val Arg Arg Asp
53   20               25               30
55 Lys Arg Asp Ala Arg Arg Glu Leu Lys Leu Leu Leu Gly Thr Gly
56   35               40               45
58 Glu Ser Gly Lys Ser Thr Phe Ile Lys Gln Met Arg Ile Ile His Gly
59   50               55               60
61 Ser Gly Tyr Ser Asp Glu Asp Lys Arg Gly Phe Thr Lys Leu Val Tyr
62   65               70               75               80
64 Gln Asn Ile Phe Thr Ala Met Gln Ala Met Ile Arg Ala Met Asp Thr

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/899,295

DATE: 07/24/2001

TIME: 10:54:05

Input Set : A:\00a033e1.app

Output Set: N:\CRF3\07242001\I899295.raw

```

65          85          90          95
67 Leu Lys Ile Pro Tyr Lys Tyr Glu His Asn Lys Ala His Ala Gln Leu
68          100          105          110
70 Val Arg Glu Val Asp Val Glu Lys Val Ser Ala Phe Glu Asn Pro Tyr
71          115          120          125
73 Val Asp Ala Ile Lys Ser Leu Trp Asn Asp Pro Gly Ile Gln Glu Cys
74          130          135          140
76 Tyr Asp Arg Arg Arg Glu Tyr Gln Leu Ser Asp Ser Thr Lys Tyr Tyr
77 145          150          155          160
79 Leu Asn Asp Leu Asp Arg Val Ala Asp Pro Ala Tyr Leu Pro Thr Gln
80          165          170          175
82 Gln Asp Val Leu Arg Val Arg Val Pro Thr Thr Gly Ile Ile Glu Tyr
83          180          185          190
85 Pro Phe Asp Leu Gln Ser Val Ile Phe Arg Met Val Asp Val Gly Gly
86          195          200          205
88 Gln Arg Ser Glu Arg Arg Lys Trp Ile His Cys Phe Glu Asn Val Thr
89          210          215          220
91 Ser Ile Met Phe Leu Val Ala Leu Ser Glu Tyr Asp Gln Val Leu Val
92 225          230          235          240
94 Glu Ser Asp Asn Glu Asn Arg Met Glu Glu Ser Lys Ala Leu Phe Arg
95          245          250          255
97 Thr Ile Ile Thr Tyr Pro Trp Phe Gln Asn Ser Ser Val Ile Leu Phe
98          260          265          270
100 Leu Asn Lys Lys Asp Leu Leu Glu Glu Lys Ile Met Tyr Ser His Leu
101          275          280          285
103 Val Asp Tyr Phe Pro Glu Tyr Asp Gly Pro Gln Arg Asp Ala Gln Ala
104          290          295          300
106 Ala Arg Glu Phe Ile Leu Lys Met Phe Val Asp Leu Asn Pro Asp Ser
107 305          310          315          320
109 Asp Lys Ile Ile Tyr Ser His Phe Thr Cys Ala Thr Asp Thr Glu Asn
110          325          330          335
112 Ile Arg Phe Val Phe Ala Ala Val Lys Asp Thr Ile Leu Gln Leu Asn
113          340          345          350
115 Leu Lys Glu Tyr Asn Leu Val
116          355
120 <210> SEQ ID NO: 3
121 <211> LENGTH: 1062
122 <212> TYPE: DNA
123 <213> ORGANISM: Mus musculus
125 <400> SEQUENCE: 3
126 atgggggtgct gcctgagcga ggaggccaag gaagcccggc ggatcaacga cgagatcgag 60
127 cggcacgtcc gcagggacaa gcgggacgcc cgccgggagc tcaagctgct gctgctcggg 120
128 acaggagaga gtggcaagag tacgtttatc aagcagatga gaatcatcca tgggtcagga 180
129 tactctgatg aagataaaag gggcttcacc aagctggtgt atcagaacat cttcacggcc 240
130 atgcaggcca tgatcagagc catggacaca ctcaagatcc catacaagta tgagcacaat 300
131 aaggctcatg cacaattagt tcgagaagtt gatgtggaga aggtgtctgc ttttgagaat 360
132 ccatatgtag atgcaataaa gagtttatgg aatgatcctg gaatccagga atgctatgat 420
133 agacgacgag aatatcaatt atctgactct accaaatact atcttaatga cttggaccgc 480
134 gtagctgacc ctgcctacct gcctacgcaa caagatgtgc ttagagtctg agtccccacc 540

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/899,295

DATE: 07/24/2001

TIME: 10:54:05

Input Set : A:\00a033e1.app

Output Set: N:\CRF3\07242001\I899295.raw

```

135 acagggatca tcgaataccc ctttgactta caaagtgtca ttttcagaat ggtcgatgta 600
136 gggggccaaa ggtcagagag aagaaaatgg atacactgct ttgaaaatgt cacctctatc 660
137 atgtttctag tagcgcttag tgaatatgat caagttctcg tggagtcaga caatgagaac 720
138 cgaatggagg aaagcaaggc tctctttaga acaattatca catacccctg gttccagaac 780
139 tcctcggtta ttctgttctt aaacaagaaa gatcttctag aggagaaaat catgtattcc 840
140 catctagtcg actacttccc agaatatgat ggaccccaga gagatgccca ggcagcccga 900
141 gaattcattc tgaagatggt cgtggacctg aaccagaca gtgacaaaat tatctactcc 960
142 cacttcacgt gcgccacaga caccgagaat atccgctttg tctttgctgc cgtcaaggac 1020
143 accatcctcc agttgaacct gaaggagtgt ggctcttct aa 1062
146 <210> SEQ ID NO: 4
147 <211> LENGTH: 353
148 <212> TYPE: PRT
149 <213> ORGANISM: Mus musculus
151 <400> SEQUENCE: 4
152 Met Gly Cys Cys Leu Ser Glu Glu Ala Lys Glu Ala Arg Arg Ile Asn
153 1 5 10 15
155 Asp Glu Ile Glu Arg His Val Arg Arg Asp Lys Arg Asp Ala Arg Arg
156 20 25 30
158 Glu Leu Lys Leu Leu Leu Leu Gly Thr Gly Glu Ser Gly Lys Ser Thr
159 35 40 45
161 Phe Ile Lys Gln Met Arg Ile Ile His Gly Ser Gly Tyr Ser Asp Glu
162 50 55 60
164 Asp Lys Arg Gly Phe Thr Lys Leu Val Tyr Gln Asn Ile Phe Thr Ala
165 65 70 75 80
167 Met Gln Ala Met Ile Arg Ala Met Asp Thr Leu Lys Ile Pro Tyr Lys
168 85 90 95
170 Tyr Glu His Asn Lys Ala His Ala Gln Leu Val Arg Glu Val Asp Val
171 100 105 110
173 Glu Lys Val Ser Ala Phe Glu Asn Pro Tyr Val Asp Ala Ile Lys Ser
174 115 120 125
176 Leu Trp Asn Asp Pro Gly Ile Gln Glu Cys Tyr Asp Arg Arg Arg Glu
177 130 135 140
179 Tyr Gln Leu Ser Asp Ser Thr Lys Tyr Tyr Leu Asn Asp Leu Asp Arg
180 145 150 155 160
182 Val Ala Asp Pro Ala Tyr Leu Pro Thr Gln Gln Asp Val Leu Arg Val
183 165 170 175
185 Arg Val Pro Thr Gly Ile Ile Glu Tyr Pro Phe Asp Leu Gln Ser
186 180 185 190
188 Val Ile Phe Arg Met Val Asp Val Gly Gly Gln Arg Ser Glu Arg Arg
189 195 200 205
191 Lys Trp Ile His Cys Phe Glu Asn Val Thr Ser Ile Met Phe Leu Val
192 210 215 220
194 Ala Leu Ser Glu Tyr Asp Gln Val Leu Val Glu Ser Asp Asn Glu Asn
195 225 230 235 240
197 Arg Met Glu Glu Ser Lys Ala Leu Phe Arg Thr Ile Ile Thr Tyr Pro
198 245 250 255
200 Trp Phe Gln Asn Ser Ser Val Ile Leu Phe Leu Asn Lys Lys Asp Leu
201 260 265 270
203 Leu Glu Glu Lys Ile Met Tyr Ser His Leu Val Asp Tyr Phe Pro Glu

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/899,295

DATE: 07/24/2001

TIME: 10:54:05

Input Set : A:\00a033e1.app

Output Set: N:\CRF3\07242001\I899295.raw

```

204          275          280          285
206 Tyr Asp Gly Pro Gln Arg Asp Ala Gln Ala Ala Arg Glu Phe Ile Leu
207          290          295          300
209 Lys Met Phe Val Asp Leu Asn Pro Asp Ser Asp Lys Ile Ile Tyr Ser
210 305          310          315          320
212 His Phe Thr Cys Ala Thr Asp Thr Glu Asn Ile Arg Phe Val Phe Ala
213          325          330          335
215 Ala Val Lys Asp Thr Ile Leu Gln Leu Asn Leu Lys Glu Cys Gly Leu
216          340          345          350
218 Phe
223 <210> SEQ ID NO: 5
224 <211> LENGTH: 1062
225 <212> TYPE: DNA
226 <213> ORGANISM: Mus musculus
228 <400> SEQUENCE: 5
229 atggcggtgct gcctgagcga ggaggccaag gaagcccggc ggatcaacga cgagatcgag 60
230 cggcacgtcc gcagggacaa gcgggacgcc cgccgggagc tcaagctgct gctgctcggg 120
231 acaggagaga gtggcaagag tacgtttatc aagcagatga gaatcatcca tgggtcagga 180
232 tactctgatg aagataaaag gggcttcacc aagctggtgt atcagaacat cttcacggcc 240
233 atgcaggcca tgatcagagc catggacaca ctcaagatcc catacaagta tgagcacaat 300
234 aaggctcatg cacaattagt tcgagaagtt gatgtggaga aggtgtctgc ttttgagaat 360
235 ccatatgtag atgcaataaa gagtttatgg aatgatcctg gaatccagga atgctatgat 420
236 agacgacgag aatatcaatt atctgactct accaaatact atcttaatga cttggaccgc 480
237 gtagctgacc ctgcctacct gcctacgcaa caagatgtgc ttagagtctg agtccccacc 540
238 acagggatca tcgaataccc ctttgactta caaagtgtca ttttcagaat ggtcgatgta 600
239 gggggccaaa ggtcagagag aagaaaatgg atacactgct ttgaaaatgt cacctctatc 660
240 atgtttctag tagcgcttag tgaatatgat caagttctcg tggagtcaga caatgagaac 720
241 cgaatggagg aaagcaaggc tctctttaga acaattatca catacccctg gttccagaac 780
242 tcctcggtta ttctgttctt aaacaagaaa gatcttctag aggagaaaat catgtattcc 840
243 catctagtcg actacttccc agaatatgat ggaccccgag gagatgcca ggcagcccga 900
244 gaattcattc tgaagatggt cgtggacctg aaccagaca gtgacaaaat tatctactcc 960
245 cacttcacgt gcgccacaga caccgagaat atccgctttg tctttgctgc cgtcaaggac 1020
246 accatcctcc agttgaacct gaaggagtgt ggcctcttct aa 1062
249 <210> SEQ ID NO: 6
250 <211> LENGTH: 353
251 <212> TYPE: PRT
252 <213> ORGANISM: Mus musculus
254 <400> SEQUENCE: 6
255 Met Ala Cys Cys Leu Ser Glu Glu Ala Lys Glu Ala Arg Arg Ile Asn
256 1          5          10          15
258 Asp Glu Ile Glu Arg His Val Arg Arg Asp Lys Arg Asp Ala Arg Arg
259          20          25          30
261 Glu Leu Lys Leu Leu Leu Leu Gly Thr Gly Glu Ser Gly Lys Ser Thr
262          35          40          45
264 Phe Ile Lys Gln Met Arg Ile Ile His Gly Ser Gly Tyr Ser Asp Glu
265          50          55          60
267 Asp Lys Arg Gly Phe Thr Lys Leu Val Tyr Gln Asn Ile Phe Thr Ala
268 65          70          75          80
270 Met Gln Ala Met Ile Arg Ala Met Asp Thr Leu Lys Ile Pro Tyr Lys

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/899,295

DATE: 07/24/2001

TIME: 10:54:05

Input Set : A:\00a033e1.app

Output Set: N:\CRF3\07242001\I899295.raw

```

271          85          90          95
273 Tyr Glu His Asn Lys Ala His Ala Gln Leu Val Arg Glu Val Asp Val
274          100          105          110
276 Glu Lys Val Ser Ala Phe Glu Asn Pro Tyr Val Asp Ala Ile Lys Ser
277          115          120          125
279 Leu Trp Asn Asp Pro Gly Ile Gln Glu Cys Tyr Asp Arg Arg Arg Glu
280          130          135          140
282 Tyr Gln Leu Ser Asp Ser Thr Lys Tyr Tyr Leu Asn Asp Leu Asp Arg
283 145          150          155          160
285 Val Ala Asp Pro Ala Tyr Leu Pro Thr Gln Gln Asp Val Leu Arg Val
286          165          170          175
288 Arg Val Pro Thr Thr Gly Ile Ile Glu Tyr Pro Phe Asp Leu Gln Ser
289          180          185          190
291 Val Ile Phe Arg Met Val Asp Val Gly Gly Gln Arg Ser Glu Arg Arg
292          195          200          205
294 Lys Trp Ile His Cys Phe Glu Asn Val Thr Ser Ile Met Phe Leu Val
295          210          215          220
297 Ala Leu Ser Glu Tyr Asp Gln Val Leu Val Glu Ser Asp Asn Glu Asn
298 225          230          235          240
300 Arg Met Glu Glu Ser Lys Ala Leu Phe Arg Thr Ile Ile Thr Tyr Pro
301          245          250          255
303 Trp Phe Gln Asn Ser Ser Val Ile Leu Phe Leu Asn Lys Lys Asp Leu
304          260          265          270
306 Leu Glu Glu Lys Ile Met Tyr Ser His Leu Val Asp Tyr Phe Pro Glu
307          275          280          285
309 Tyr Asp Gly Pro Gln Arg Asp Ala Gln Ala Ala Arg Glu Phe Ile Leu
310          290          295          300
312 Lys Met Phe Val Asp Leu Asn Pro Asp Ser Asp Lys Ile Ile Tyr Ser
313 305          310          315          320
315 His Phe Thr Cys Ala Thr Asp Thr Glu Asn Ile Arg Phe Val Phe Ala
316          325          330          335
318 Ala Val Lys Asp Thr Ile Leu Gln Leu Asn Leu Lys Glu Cys Gly Leu
319          340          345          350
321 Phe

```

326 <210> SEQ ID NO: 7

327 <211> LENGTH: 1062

328 <212> TYPE: DNA

329 <213> ORGANISM: Mus musculus

331 <400> SEQUENCE: 7

```

332 atggcggtgct gcctgagcga ggaggccaag gaagcccggc ggatcaacga cgagatcgag 60
333 cggcacgtcc gcagggacaa gcgggacgcc cgccgggagc tcaagctgct gctgctcggg 120
334 acaggagaga gtggcaagag tacgtttatc aagcagatga gaatcatcca tgggtcagga 180
335 tactctgatg aagataaaag gggcttcacc aagctggtgt atcagaacat cttcacggcc 240
336 atgcaggcca tgatcagagc catggacaca ctcaagatcc catacaagta tgagcacaat 300
337 aaggctcatg cacaattagt tcgagaagtt gatgtggaga aggtgtctgc ttttgagaat 360
338 ccatatgtag atgcaataaa gagtttatgg aatgacacct gaatccagga atgctatgat 420
339 agacgacgag aatatcaatt atctgactct accaaatact atcttaatga cttggaccgc 480
340 gtagctgacc ctgcctacct gcctacgcaa caagatgtgc ttagagttcg agtccccacc 540
341 acagggatca tcgaataccc ctttgactta caaagtgtca ttttcagaat ggatcgatgta 600

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/899,295

DATE: 07/24/2001

TIME: 10:54:06

Input Set : A:\00a033e1.app

Output Set: N:\CRF3\07242001\I899295.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date